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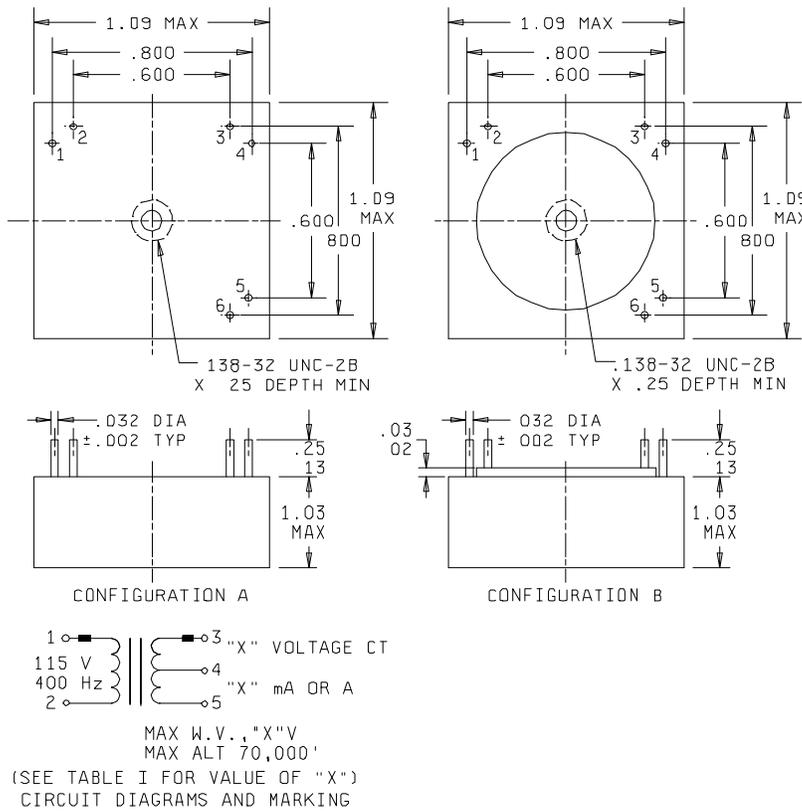
MIL-PRF-27/43B
 7 February 1984
 SUPERSEDING
 MIL-T-27/43A
 20 October 1976

PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 9 VOLT AMPERES, 400 HZ,
 TF5S03ZZ664 TO TF5S03ZZ707, INCLUSIVE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the transformers described herein shall consist of this specification and the latest issue of MIL-T-27.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ±.005 (0.13 mm).
4. Marking shall be on the side of the case.
5. A white dot shall be marked on the side opposite the terminals, over terminal 1, in addition to the terminal marking shown.
6. Secondary electrical values shall be marked as specified in table I, as applicable.

FIGURE 1. Dimensions and configuration.

(B) denotes changes

REQUIREMENTS: (When numbers in parentheses i.e. (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings: See table I.

Primary voltage (1-2): 115 volts \pm 10 percent, 400 Hz \pm 5 percent.

Design and construction:

Dimensions and configuration: See figure 1.

Weight: 2.2 ounces, maximum.

Duty cycle: Continuous.

Case: Plastic encapsulated.

Material: Plastic.

Altitude: 70,000 feet, maximum.

Operating temperature range: -55°C to $+130^{\circ}\text{C}$ maximum.

Terminals: Printed circuit pins - tinned brass.

Terminal strength: Method 211 of MIL-STD-202, test condition A, 2.0 pounds.

Dielectric withstanding voltage:

At sea level: 2.8 times the maximum working voltage specified in table I.

At reduced barometric pressure: 1.25 times the maximum working voltage specified in table I.

Electrical characteristics:

No load: With 115 volts, 400 Hz across (1-2): Current in (1-2) shall not exceed 9 mA rms.

Rated load: With 115 volts, 400 Hz across (1-2) and a resistive load with current as specified in table I in (3-5), the voltage across (3-5) shall be as specified in table I.

Efficiency: 83 percent minimum at rated load.

Polarity: Additive with terminals 2 and 3 connected.

Regulation:
$$\frac{\text{Voltage (no load)} - \text{Voltage (rated load)}}{\text{Voltage (rated load)}} \times 100$$
 shall not exceed 10 percent

Phase shift: 1.0 electrical degree between primary and secondary voltage at rated load, maximum.

Temperature rise: 30°C , maximum.

Vibration: MIL-STD-202, method 204, test condition D.

Marking location: See figure 1.

Ⓑ QUALITY ASSURANCE PROVISIONS:

Extent of qualification:

Qualification testing and approval to M27/37-44 A or B, M27/42-44 A or B, and M27/46-44 A or B shall be sufficient to grant qualification approval to MIL-T-27/37 through MIL-T-27/47 inclusive, all parts.

MIL-T-27/43B

Qualification testing and approval to M27/43-44 shall be sufficient to grant qualification approval to M27/43-01 through M27/43-44.

Part number example:

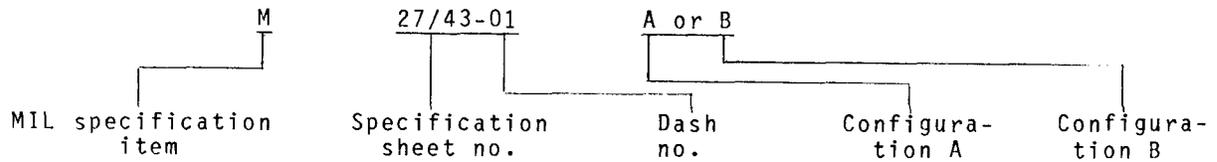


TABLE I. Electrical ratings.

Dash no.	Type designation	Secondary voltage (3-5) (V rms) $\pm 3\%$	Secondary current (3-5) (amps rms)	Working voltage (V rms max)	
01	A or B	664	6	1.500	325
02	"	665	6.3	1.430	"
03	"	666	7	1.286	"
04	"	667	7.5	1.200	"
05	"	668	8	1.125	"
06	"	669	9	1.000	"
07	"	670	10	0.900	"
08	"	671	11	0.818	"
09	"	672	12	0.750	"
10	"	673	12.6	0.715	"
11	"	674	13	0.692	"
12	"	675	15	0.600	"
13	"	676	16	0.563	"
14	"	677	18	0.500	"
15	"	678	20	0.450	"
16	"	679	22	0.409	"
17	"	680	24	0.375	"
18	"	681	26	0.346	"
19	"	682	28	0.321	"
20	"	683	30	0.300	"
21	"	684	33	0.273	"
22	"	685	36	0.250	"
23	"	686	39	0.231	"
24	"	687	43	0.209	"
25	"	688	47	0.191	"
26	"	689	51	0.176	"
27	"	690	56	0.161	"
28	"	691	62	0.145	"
29	"	692	68	0.132	"
30	"	693	75	0.120	"
31	"	694	82	0.110	"
32	"	695	91	0.099	"
33	"	696	100	0.090	"
34	"	697	110	0.082	"
35	"	698	115	0.078	"
36	"	699	120	0.075	"
37	"	700	130	0.069	"
38	"	701	150	0.060	"
39	"	702	180	0.050	"
40	"	703	200	0.045	440
41	"	704	220	0.041	440
42	"	705	240	0.038	440
43	"	706	270	0.033	580
44	"	707	300	0.030	580

Custodians:

Army - ER
Navy - EC
Air Force - 85

Preparing activity:
Army - ER

(Project 5950-0623-9)

Review activities:

Army - MI
Navy - OS
Air Force - 11, 17, 99
DLA - ES

User activities:

Army - ME
Navy - MC, AS
Air Force - 19

Agent:

DLA - ES